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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hadala

Serial No. 09/992,610

Confirmation No. 7580

Filed: 19 November 2001

Title: A Temperature-Sensing Device for Determining the Level of a Fluid

Examiner: Jackson, A.

Art Unit: 2856

Docket: 1181-01

APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Please enter the following appeal brief in response to the Final Official Action of 4 June 2003. Reversal of all rejections is sought. The brief is submitted in triplicate.

REAL PARTY IN INTEREST

The real party in interest is identified in the caption of the brief.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences to the appealed case.

STATUS OF AMENDMENT

There has been an amendment to the claims after the Final Rejection. The amendment reduces the claims on appeal.

SUMMARY OF INVENTION

The invention describes a method and an apparatus for effectively determining the level of fluid in a pressurized container particularly where the fluids in the container have different compositions and accordingly different heat transfer characteristics.

ISSUES

Are claims 1 through 3 inclusive 6, 10, 11, and claim 13 obvious over United States Patent 5,165,569 to Furuhashi et al. (hereinafter the Furuhashi et al. patent) in view of the United States Patent 6,260,414 to Brown et al. (hereinafter the Brown et al. patent)?

Is claim 8 obvious over the Furuhashi et al. patent in view of the Brown et al. patent further in view of United States Patent 4,339,207 to Hof et al. (hereinafter the Hof et al. patent)?

Are claims 15 through 22 inclusive obvious from the Brown et al. patent?

GROUPING OF CLAIMS

Independent claims 1 and 15 are separately argued. Dependent claims 2 and 3 depending from claim 1 are separately argued. Dependent claim 13 is separately argued.

The submission of the claims in this appeal is for the convenience of the Board and in no manner constitutes a waiver or admission that the remaining claims are not separately patentable.

ARGUMENTS

Independent claim 1 sets forth a method for determining the level of a carbonated fluid in a container having at least two fluids therein. A difficulty arises because as the head space increases the carbonated fluid will release carbon dioxide thereby causing foaming. The foaming is in addition to the second fluid in the container. The foam is neither purely carbon dioxide nor the first carbonated fluid. The foam is a third phase in the container having its own heat transfer characteristics. Thus, it is difficult if not impossible to determine the level of the first carbonated fluid in the container.

In the claimed method according to claim 1, the first carbonated fluid is at least partially removed from the container while introducing carbon dioxide to the container which reduces the tendency for foaming. Effectively, the claimed method lessens the tendency for the foam to form and interfere with the accurate detection of the level of

The Furuhashi et al. patent discloses a container for holding beer. Nothing in the Furuhashi et al. patent suggests measuring the level of liquid in a container. Moreover, nothing in the Furuhashi et al. patent suggests measuring the level of liquid at any time in a container. On the latter point, the Examiner admits that not only does the Furuhashi et al. patent not suggest measuring the level of liquid at any time in a container, as set forth in claims 2 and 3 but that the Brown et al. patent never makes such a suggestion. Thus, by the Examiner's admission claims 2 and 3 must be patentable over the combination of the Furuhashi et al. patent and the Brown et al. patent.

As to claim 1, the Brown et al. patent never discloses introducing carbon dioxide or even having an inlet to introduce carbon dioxide to a container. The Brown et al. patent never provides a reason to introduce carbon dioxide or to recognize that carbon dioxide should be introduced to provide accurate levels of the first carbonated fluid in the container.

It is not merely enough in an obviousness rejection that one can pick isolated teachings of references but that the references must provide reasoning for combining the teachings. The Examiner has not provided such reasoning, and cannot do so, in making the Furuhashi et al. patent in view of the Brown et al. patent rejection. Thus, the Furuhashi et al. patent in view of the Brown et al. patent rejection should be removed.

Claim 13 recites the method according to claim 1 additionally comprising the step of wiping the temperature-measuring device with a water moistened cloth wherein the temperature of the water moistened cloth is less than 105 ° F. The Examiner cites the background of the Brown et al. patent as teaching a water-moistened cloth. The cited portions of the Brown et al. patent never mention any water moistened cloth but rather says to apply water. The application of water is not the use of a water moistened cloth at a temperature of less than 105 ° F. Moreover, the context of the Brown et al. patent is to apply water to a propane tank or a wine bottle not to container into which

carbon dioxide is introduced as required in claim 13. Thus, the rejection of claim 13 based on the Furuhashi et al. patent in view of the Brown et al. patent should be removed.

Claim 15 stands rejected over the Brown et al. patent. Claim 15 recites a temperature-measuring device mounted on a magnetic strip said temperature measuring device having a width, a height, and a thickness, provided further that the dimensionless ratio of said width to said height is about 0.5 to about 10 to about 1 to about 5. The Examiner misunderstands claim 15 in the recitation of dimensionless. The term dimensionless means that the measurements in a ratio cancel each other out. Thus, unlike a measurement of a ratio of volume to weight the measurements in claim 15 are purely distance to distance. As such, the applicant and not the Brown et al. patent have determined that the specified measurements for a temperature-measuring device are ideal for determining, for example, the level of a liquid in a container. Such specified measurements for a temperature-measuring device are not taught in the Brown et al. patent. Thus, the Brown et al. patent cannot render claim 15 obvious. Thus, the rejection of claim 15 as being obvious from the Brown et al. patent should be removed.

C O N C L U S I O N S

THE EXAMINER HAS FAILED TO MAKE A PRIMA FACIE CASE OF OBVIOUSNESS. THE REJECTIONS SHOULD BE REVERSED.

THE PENDING CLAIMS SHOULD BE ALLOWED AND SUCH IS REQUESTED.

Should the Board have any questions, such may be directed to the number given on this page.

Respectfully submitted,



Forrest L. Collins
Reg. No. 27816

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Forrest L. Collins
Post Office Box 41040
Brecksville, Oh 44141-0040
Telephone 440-526-0610
Facsimile 440-526-1819
Email: forpatents@adelphia.com
FLC/kap

APPENDIX CLAIMS ON APPEAL

1. A method for determining the level of a carbonated fluid in a container comprising:

obtaining a container having an outlet for a first carbonated fluid and an inlet for introducing carbon dioxide;

said container having a first carbonated fluid region therein;

a first carbonated fluid being present at an original level in said first carbonated fluid region of said container;

said container, for when in use, having said first carbonated fluid at least partially removed from said container while introducing carbon dioxide to said container thereby forming a second carbonated fluid region;

placing on at least one exterior surface of said container at least one temperature-measuring device;

at least one said temperature-measuring device being located in a region of said container where said second carbonated fluid region is formed by removal of said first carbonated fluid;

initially observing a first temperature in said first carbonated fluid region of said container when said first carbonated fluid is present in said first carbonated fluid region of said container;

subsequently observing a second temperature in said second carbonated fluid region of said container after a portion of said first carbonated fluid has been removed; and,

correlating the difference between said first temperature and said second temperature to the level of said first carbonated fluid in said container.

2. The method for determining the level of said first fluid in said container according to claim 1 wherein said first fluid is at least partially withdrawn through said

outlet between the time of observing said first temperature and said second temperature.

3. The method for determining the level of said first fluid in said container according to claim 1 wherein the second fluid is introduced through said inlet between the time of observing said first temperature and said second temperature.

6. The method for determining the level of said first fluid in said container according to claim 1 wherein said temperature-measuring device is adhered to an outer surface of said container as a magnetic strip.

8. The method for determining the level of said first fluid in a container according to claim 1 wherein at least one temperature-measuring device is a eutectic temperature-measuring device.

10. The method for determining the level of said first fluid in said container according to claim 1 wherein said container is in a refrigerator.

11. The method for determining the level of said first fluid in said container according to claim 1 wherein said first fluid is a liquid.

13. The method for determining the level of said first fluid in said container according to claim 1 additionally comprising the step of wiping the temperature-measuring device with a water moistened cloth wherein the temperature of the water moistened cloth is less than 105 ° F.

14. The method for determining the level of said first fluid in said container according to claim 1 wherein the pressure within said container at 70 °F is about 5 pounds per square inch to about 100 pounds per square inch.

15. A temperature-measuring device mounted on a magnetic strip said temperature measuring device having a width, a height, and a thickness, provided further that the dimensionless ratio of said width to said height is about 0.5 to about 10

16. The temperature-measuring device according to claim 15 wherein the dimensionless ratio of said width to said height is about 0.7 to about 10 to about 1 to about 4.

17. The temperature-measuring device according to claim 15 wherein said device measures temperatures in the range of about 34 ° F to about 94 ° F.

18. The temperature-measuring device according to claim 15 wherein said device measures temperatures in the range of about 34 ° F to about 86 ° F.

19. A temperature-measuring device mounted on an adhesive strip said temperature measuring device having a width, a height, and a thickness, provided further that the dimensionless ratio of said width to said height is from about 0.5 to about 10 to about 1 to about 5.

20. The temperature-measuring device according to claim 19 wherein the dimensionless ratio of said width to said height is about 0.7 to about 10 to about 1 to about 4.

21. The temperature-measuring device according to claim 19 wherein said device measures temperatures in the range of about 34 ° F to about 94 ° F.

22. The temperature-measuring device according to claim 19 wherein said device measures temperatures in the range of about 34 ° F to about 86 ° F.



PATENT

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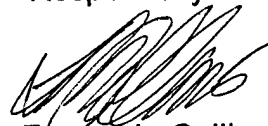
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